

## ABSTRACT OF THE DISCLOSURE

The accuracy of effective channel width extraction in drain current method is improved. There are prepared a transistor with a wide channel width serving as a reference, and a transistor with a narrow channel width that becomes a candidate for extraction (step ST1.1). From the characteristic curve of a plane formed by mask channel width and source-drain conductance, there is extracted a virtual point at which the change of source-drain conductance is estimated to be approximately zero even if the gate overdrive is finely changed. Then, the value of function  $F$  is calculated which is defined by the difference between the change of the conductance at the coordinate of the virtual point and the product obtained by multiplying the conductance per unit width by the change of the mask channel width (step ST1.6). From a shift amount ( $\delta$ ) which minimizes the standard deviation of the function  $F$  to be obtained (step ST1.7), the true threshold voltage of the transistor with the narrow channel width is determined (step ST1.10).